

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

SUNOCO PARTNERS MARKETING &  
TERMINALS L.P.,

Plaintiff,

v.

U.S. VENTURE, INC., U.S. OIL, AND  
TECHNICS, INC.,

Defendants.

CIVIL ACTION No. 1:15-CV-08178

JURY TRIAL DEMANDED

**AMENDED AND SUPPLEMENTAL  
COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Sunoco Partners Marketing & Terminals L.P. (“Plaintiff” or “Sunoco”) files this Amended and Supplemental Complaint for Patent Infringement against Defendants U.S. Venture, Inc., U.S. Oil, and Technics, Inc. (collectively, “Defendants”) as set forth below:

**PARTIES**

1. Plaintiff Sunoco Partners Marketing & Terminals L.P. is a limited partnership organized under the laws of the State of Texas, with its principal place of business in the United States located at 1818 Market Street, Suite 1500, Philadelphia, Pennsylvania 19103. Plaintiff Sunoco Partners Marketing & Terminals L.P. is the owner, by assignment, of all right, title and interest to U.S. Patent Nos. 6,679,302; 7,032,629; 7,631,671; 9,494,948; and 9,606,548.

2. Upon information and belief, U.S. Venture, Inc. (“U.S. Venture”) is a corporation organized under the laws of the State of Wisconsin, with its principal place of business located at 425 Better Way, Appleton, Wisconsin 54915. Defendant U.S. Venture’s registered agent for

service of process in Illinois is CT Corporation System, 208 So. LaSalle St., Suite 814, Chicago, IL 60604.

3. Upon information and belief, U.S. Oil is a wholly owned subsidiary and/or division of U.S. Venture with its principal place of business at 425 Better Way, Appleton, Wisconsin 54915. Upon information and belief, Defendant U.S. Oil does not maintain a registered agent for service of process in Illinois, but may be served through an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

4. Upon information and belief, Technics, Inc. (“Technics”) is a corporation organized under the laws of the State of Illinois, with its principal place of business located at 608 South Washington, Naperville, Illinois 60540. Defendant Technics’ registered agent for service of process in Illinois is Coman & Anderson, PC, 650 Warrenville Rd., Suite 500C, Lisle, IL, 60532.

#### **NATURE OF THIS ACTION**

5. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.

#### **JURISDICTION AND VENUE**

6. This Court has exclusive subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

7. Upon information and belief, U.S. Venture directs and/or controls U.S. Oil such that U.S. Oil constitutes the alter ego and/or agent of U.S. Venture. Upon information and belief, U.S. Venture wholly owns U.S. Oil and U.S. Oil is financially dependent on U.S. Venture, U.S. Venture shares common officers and/or directors with U.S. Oil, and/or U.S. Venture exercises control over the marketing and operational policies of U.S. Oil (hereinafter, collectively “U.S. Venture”).

8. This Court has personal jurisdiction over U.S. Venture by virtue of U.S. Venture's significant contacts with this forum. On information and belief, U.S. Venture makes butane blended gasoline and/or uses a system for making butane blended gasoline that is and has been offered for sale, sold, purchased, and/or stored (directly or indirectly through third party terminals) in the Northern District of Illinois. On information and belief, U.S. Venture, directly and/or through its distribution network places such butane blended gasoline within the stream of commerce, with knowledge and/or understanding that such butane blended gasoline will be sold in the Northern District of Illinois. Therefore, exercise of jurisdiction over U.S. Venture will not offend traditional notions of fair play and substantial justice.

9. Upon information and belief, Technics is subject to personal jurisdiction by virtue of its contacts with the State of Illinois, and with the Northern District of Illinois in particular. Technics maintains its principal place of business in this district, in Naperville, Illinois, and transacts business in this district, including making, using, selling, and/or offering to sell systems for the blending of butane and gasoline, such as Technics Butane Blenders.

10. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b) because this Court has personal jurisdiction over Defendants and Defendant Technics has its principal place of business in this District.

11. Joinder of Defendants in this case is proper under 35 U.S.C. § 299 because (1) certain infringing acts of Defendants arise out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process, and (2) there exists questions of fact common to all Defendants.

### FACTS COMMON TO EACH CLAIM FOR RELIEF

12. On information and belief, Technics markets, uses, offers for sale and sells butane blenders and systems. Technics' butane blending process for use with its butane blenders and systems is powered by its LOGOS platform. A typical operation for butane blending using Technics' LOGOS platform is as follows:

- 1) LOGOS places the system in ready mode and it immediately samples the butane feed, measures and records the RVP.
- 2) After the butane is recorded, the system sits idle waiting for gasoline flow. Once detected the raw gasoline is sampled and its vapor pressure and density are recorded.
- 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.
- 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.
- 5) The system re-enters idle mode when the gasoline flow is stopped. A batch report is generated and stored in the computer. The deviation between calculated and actual RVP is used by the computer to modify its stored algorithm in preparation for the next transfer.

See **Exhibit 1** [<http://www.technicsglobal.com/PDFs/TechnicsButaneBrochure.pdf>].

13. Upon information and belief, Technics sells butane blenders and systems to gas and liquid processing facilities to which Technics offers tank farm management controls and butane blending equipment. Upon information and belief, one of those customers is U.S. Venture.

14. Upon information and belief, U.S. Venture has been operating a butane blending system designed, constructed, and/or maintained by Technics in at least three locations: U.S. Oil Madison South Terminal, U.S. Oil Milwaukee Central Terminal, and U.S. Oil Fox River Terminal.

15. Upon information and belief, U.S. Venture has been operating a butane blending system in at least three additional locations: U.S. Oil Bettendorf Terminal, U.S. Oil Milwaukee West Terminal, and U.S. Oil Fort Worth Terminal.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,679,302**

16. Sunoco realleges and incorporates herein by reference the allegations in each of the preceding paragraphs as if fully set forth herein.

17. On January 20, 2004, U.S. Patent No. 6,679,302 (the “’302 patent”) was duly and legally issued by the U.S. Patent and Trademark Office (“PTO”) to Mattingly et al. for an invention relating to a “Method And System For Blending Gasoline And Butane At The Point Of Distribution.” A true and correct copy of the ’302 patent is attached hereto as **Exhibit 2**. The ’302 patent is presumed valid pursuant to 35 U.S.C. § 282.

18. Mattingly et al. assigned all right, title and interest in the ’302 patent to MCE Blending, LLC. MCE Blending, LLC subsequently assigned all right, title and interest in the ’302 patent to Sunoco Partners Butane Blending LLC. Thereafter, Sunoco Partners Butane Blending LLC assigned all right, title and interest in the ’302 patent to Plaintiff Sunoco Partners Marketing & Terminals L.P.

19. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, U.S. Venture has been, and still is, infringing one or more claims of the ’302 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

20. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, Technics has been, and still is, infringing one or more claims of the ’302 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

21. For example, the preamble of claim 1 recites “[a] system for blending gasoline and butane at a tank farm.” U.S. Venture has been and/or still is utilizing systems for blending gasoline and butane at its Fox River Terminal, Madison South Terminal, and Milwaukee Central Terminal. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

22. Claim 1 further recites “a tank of gasoline.” U.S. Venture’s butane blending systems include a tank of gasoline. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”); Ex. 1 (“The system begins to add butane to the flow [of gasoline]. . . . At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”).

23. Claim 1 further recites “a tank of butane.” U.S. Venture’s butane blending systems include a tank of butane. *See* Ex. 1 (“The system begins to add butane to the flow [of gasoline].”); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”).

24. Claim 1 further recites “a blending unit, at the tank farm, downstream of and in fluid connection with the tank of gasoline and the tank of butane.” U.S. Venture’s butane blending systems include a blending unit, at the tank farm, downstream of and in fluid connection with the tank of gasoline and the tank of butane. *See* Ex. 1 (“The system begins to add butane to the flow [of gasoline]. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (Technics’ “Typical Process Diagram” showing flow control valves used in connection with butane injection); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel

controlled butane flow provides extremely tight dosing to within 0.05%.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a programmable logic controller or “PLC” used in connection with butane injection).

25. Claim 1 further recites “a dispensing unit downstream of and in fluid connection with the blending unit; and a rack, wherein the dispensing unit is located at the rack and is adapted to dispense gasoline to gasoline transport vehicles.” U.S. Venture’s butane blending systems include a dispensing unit downstream of and in fluid connection with the blending unit, and a rack, wherein the dispensing unit is located at the rack and is adapted to dispense gasoline to gasoline transport vehicles. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

26. In violation of 35 U.S.C. § 271(b), Technics is actively inducing, will continue to actively induce, and upon information and belief Technics has actively induced others, such as U.S. Venture and other Technics’ customers, to directly infringe the ’302 patent in this district and elsewhere in the United States.

27. Upon information and belief, U.S. Venture and Technics will continue to infringe one or more claims of the ’302 patent unless enjoined by this Court.

28. U.S. Venture has been, or at least should have been, aware of the ’302 patent prior to the filing of this Complaint after being put on notice of Sunoco’s butane blending patents during or related to a December 2008 presentation to U.S. Venture regarding the patented invention.

29. Defendants’ continued making, using, selling and/or offering to sell gasoline blended with butane and/or systems or methods for the blending of butane and gasoline has been and will continue to be willful and deliberate. Sunoco’s patented systems have also been marked

with the '302 patent to give competitors notice of the patented invention. As a result, Defendants' infringement of the '302 patent has been willful.

30. Technics' continued inducement of others to directly infringe the '302 patent constitutes at least reckless disregard of the '302 patent. As a result, Technics' infringement of the '302 patent has been willful.

31. As a result of U.S. Venture's and Technics' infringement, Sunoco has suffered and will continue to suffer damages in an amount to be proven at trial and irreparable harm.

32. Upon information and belief, the conduct of U.S. Venture presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

33. Upon information and belief, the conduct of Technics presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

**COUNT II  
INFRINGEMENT OF U.S. PATENT NO. 7,032,629**

34. Sunoco realleges and incorporates herein by reference the allegations in each of the preceding paragraphs as if fully set forth herein.

35. On April 25, 2006, U.S. Patent No. 7,032,629 (the "'629 patent") was duly and legally issued by the U.S. Patent and Trademark Office ("PTO") to Mattingly et al. for an invention relating to a "Method And System For Blending Gasoline And Butane At The Point Of Distribution." A true and correct copy of the '629 patent is attached hereto as **Exhibit 3**. The '629 patent is presumed valid pursuant to 35 U.S.C. § 282.

36. Mattingly et al. assigned all right, title and interest in the '629 patent to MCE Blending, LLC. MCE Blending, LLC subsequently assigned all right, title and interest in the '629



patent to Sunoco Partners Butane Blending LLC. Thereafter, Sunoco Partners Butane Blending LLC assigned all right, title and interest in the '629 patent to Plaintiff Sunoco Partners Marketing & Terminals L.P.

37. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, U.S. Venture has been, and still is, infringing one or more claims of the '629 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

38. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, Technics has been, and still is, infringing one or more claims of the '629 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

39. For example, the preamble of claim 1 recites “[a] system for blending gasoline and butane.” U.S. Venture has been and/or still is utilizing systems for blending gasoline and butane at its Fox River Terminal, Madison South Terminal, and Milwaukee Central Terminal. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

40. Claim 1 further recites “a tank of gasoline.” U.S. Venture’s butane blending systems include a tank of gasoline. *See* Ex. 1 (“The system begins to add butane to the flow [of gasoline]. . . . At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

41. Claim 1 further recites “a tank of butane.” U.S. Venture’s butane blending systems include a tank of butane. *See* Ex. 1 (“The system begins to add butane to the flow [of gasoline.]”); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”).

42. Claim 1 further recites “a blending unit downstream of and in fluid connection with the tank of gasoline and the tank of butane.” U.S. Venture’s butane blending systems include a blending unit downstream of and in fluid connection with the tank of gasoline and the tank of butane. *See* Ex. 1 (“The system begins to add butane to the flow [of gasoline]. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (Technics’ “Typical Process Diagram” showing flow control valves used in connection with butane injection); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a PLC used in connection with butane injection).

43. Claim 1 further recites “a rack downstream of and in fluid connection with the blending unit, wherein the rack is adapted to dispense gasoline to a gasoline transport vehicle.” U.S. Venture’s butane blending systems include a rack downstream of and in fluid connection with the blending unit, wherein the rack is adapted to dispense gasoline to a gasoline transport vehicle. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

44. In violation of 35 U.S.C. § 271(b), Technics is actively inducing, will continue to actively induce, and upon information and belief Technics has actively induced others, such as U.S. Venture and other Technics’ customers, to directly infringe the ’629 patent in this district and elsewhere in the United States.

45. Upon information and belief, U.S. Venture and Technics will continue to infringe one or more claims of the '629 patent unless enjoined by this Court.

46. U.S. Venture has been, or at least should have been, aware of the '629 patent prior to the filing of this Complaint after being put on notice of Sunoco's butane blending patents during or related to a December 2008 presentation to U.S. Venture regarding the patented invention.

47. Defendants' continued making, using, selling and/or offering to sell gasoline blended with butane and/or systems or methods for the blending of butane and gasoline has been and will continue to be willful and deliberate. As a result, Defendants' infringement of the '629 patent has been willful.

48. Technics' continued inducement of others to directly infringe the '629 patent constitutes at least reckless disregard of the '629 patent. As a result, Technics' infringement of the '629 patent has been willful.

49. As a result of U.S. Venture's and Technics' infringement, Sunoco has suffered and will continue to suffer damages in an amount to be proven at trial and irreparable harm.

50. Upon information and belief, the conduct of U.S. Venture presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

51. Upon information and belief, the conduct of Technics presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

**COUNT III**  
**INFRINGEMENT OF U.S. PATENT NO. 7,631,671**

52. Sunoco realleges and incorporates herein by reference the allegations in each of the preceding paragraphs as if fully set forth herein.

53. On December 15, 2009, U.S. Patent No. 7,631,671 (the “’671 patent”) was duly and legally issued by the U.S. Patent and Trademark Office (“PTO”) to Mattingly et al. for an invention relating to “Versatile Systems For Continuous In-Line Blending Of Butane And Petroleum.” A true and correct copy of the ’671 patent is attached hereto as **Exhibit 4**. The ’671 patent is presumed valid pursuant to 35 U.S.C. § 282.

54. Mattingly et al. assigned all right, title and interest in the ’671 patent to MCE Blending, LLC. MCE Blending, LLC subsequently assigned all right, title and interest in the ’671 patent to Sunoco Partners Butane Blending LLC. Thereafter, Sunoco Partners Butane Blending LLC assigned all right, title and interest in the ’671 patent to Plaintiff Sunoco Partners Marketing & Terminals L.P.

55. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, U.S. Venture has been, and still is, infringing one or more claims of the ’671 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

56. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, Technics has been, and still is, infringing one or more claims of the ’671 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

57. For example, the preamble of claim 1 recites “[a] method for in-line blending of gasoline and butane.” U.S. Venture has been and/or still is utilizing systems and methods for in-line blending of gasoline and butane at its Fox River Terminal, Madison South Terminal, and Milwaukee Central Terminal. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting

gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”).

58. Claim 1 further recites “providing a continuously flowing gasoline stream that comprises: i) a plurality of batches of different gasoline types; ii) a gasoline flow rate that varies over time; and iii) a plurality of gasoline vapor pressures.” U.S. Venture’s butane blending systems and methods include providing a continuously flowing gasoline stream that comprises a plurality of batches of different gasoline types, a gasoline flow rate that varies over time, and a plurality of gasoline vapor pressures. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”).

59. Claim 1 further recites “providing an allowable vapor pressure.” U.S. Venture’s butane blending systems and methods include providing an allowable vapor pressure. *See* Ex. 1 (“The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (Technics’ “Typical Process Diagram” showing an analyzer connected to the gasoline stream); Ex.

1 (Technics' software displaying "RVP of Blended Volume," "Analyzer Pump (Outlet)," and "Analyzer Pump (Inlet)").

60. Claim 1 further recites "providing a butane stream that comprises a butane vapor pressure." U.S. Venture's butane blending systems and methods include providing a butane stream that comprises a butane vapor pressure. *See* Ex. 1 ("LOGOS places the system in ready mode and it immediately samples the butane feed, measures and records the RVP. . . . The system begins to add butane to the flow."); Ex. 1 ("Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%."); Ex. 1 ("We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.").

61. Claim 1 further recites "periodically determining said gasoline vapor pressure." U.S. Venture's butane blending systems and methods include periodically determining the gasoline vapor pressure. *See* Ex. 1 ("2) . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank."); Ex. 1 ("We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task."); Ex. 1 ("Technics' blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline."); Ex. 1 (Technics' "Typical Process Diagram" showing an analyzer connected to the gasoline stream).

62. Claim 1 further recites “periodically determining said gasoline flow rate.” U.S. Venture’s butane blending systems and methods include periodically determining the gasoline flow rate. *See* Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (“2) . . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (Technics’ “Typical Process Diagram” showing flow meters on gasoline line).

63. Claim 1 further recites “calculating a blend ratio based upon said butane vapor pressure, said gasoline vapor pressure, and said allowable vapor pressure.” U.S. Venture’s butane blending systems and methods include calculating a blend ratio based upon the butane vapor pressure, the gasoline vapor pressure, and the allowable vapor pressure. *See* Ex. 1 (“(1) LOGOS places the system in ready mode and it immediately samples the butane feed, measures and records the RVP. 2) After the butane is recorded, the system sits idle waiting for gasoline flow. Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi

on the pipeline.”); Ex. 1 (Technics’ “Typical Process Diagram” showing an analyzer connected to the gasoline stream).

64. Claim 1 further recites “blending said butane stream and said gasoline stream at a blending unit at said blend ratio to provide a blended gasoline stream having a blended vapor pressure less than or equal to said allowable vapor pressure.” U.S. Venture’s butane blending systems and methods include blending the butane and gasoline streams at a blending unit at the blend ratio to provide a blended gasoline stream having a blended vapor pressure less than or equal to the allowable vapor pressure. *See* Ex. 1 (“2) . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection).

65. In violation of 35 U.S.C. § 271(b), Technics is actively inducing, will continue to actively induce, and upon information and belief Technics has actively induced others, such as U.S. Venture and other Technics’ customers, to directly infringe the ’671 patent in this district and elsewhere in the United States.



66. Upon information and belief, U.S. Venture and Technics will continue to infringe one or more claims of the '671 patent unless enjoined by this Court.

67. Upon information and belief, U.S. Venture has been aware, or at least should have been aware, of the '671 patent prior to the filing of this Complaint after being put on notice of Sunoco's butane blending patents during or related to a December 2008 presentation to U.S. Venture regarding the patented invention.

68. Defendants' continued making, using, selling and/or offering to sell gasoline blended with butane and/or systems or methods for the blending of butane and gasoline has been and will continue to be willful and deliberate. As a result, Defendants' infringement of the '671 patent has been willful.

69. Technics' continued inducement of others to directly infringe the '671 patent constitutes at least reckless disregard of the '671 patent. As a result, Technics' infringement of the '671 patent has been willful.

70. As a result of U.S. Venture's and Technics' infringement, Sunoco has suffered and will continue to suffer damages in an amount to be proven at trial and irreparable harm.

71. Upon information and belief, the conduct of U.S. Venture presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

72. Upon information and belief, the conduct of Technics presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 9,494,948**

73. Sunoco realleges and incorporates herein by reference the allegations in each of the preceding paragraphs as if fully set forth herein.

74. On November 15, 2016, U.S. Patent No. 9,494,948 (the “’948 patent”) was duly and legally issued by the U.S. Patent and Trademark Office (“PTO”) to Mattingly et al. for an invention relating to “Versatile Systems For Continuous In-Line Blending Of Butane And Petroleum.” A true and correct copy of the ’948 patent is attached hereto as **Exhibit 5**. The ’948 patent is presumed valid pursuant to 35 U.S.C. § 282.

75. Mattingly et al. assigned all right, title and interest in the ’948 patent to Plaintiff Sunoco Partners Marketing & Terminals L.P.

76. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, U.S. Venture has been, and still is, infringing one or more claims of the ’948 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by using the claimed systems for the blending of butane and gasoline.

77. For example, the preamble of claim 7 recites “[a] system for blending butane with gasoline in a pipe to form a blend of butane and gasoline, wherein the gasoline and the blend of gasoline and butane each have a vapor pressure.” U.S. Venture has been and/or still is utilizing systems for blending butane with gasoline in a pipe to form a blend of butane and gasoline, wherein the gasoline and the blend of gasoline and butane each have a vapor pressure, at its Fox River Terminal, Madison South Terminal, and Milwaukee Central Terminal. *See* Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”); Ex. 7, Risk Management Plan (“RMP”) for Fox River Terminal (“This butane blending system is designed,

constructed, and maintained in accordance with NFPA #58 and the manufacturers' (Technics and Westmor) instructions."); Ex. 8, RMP for Madison South Terminal (same); Ex. 9, RMP for Milwaukee Central Terminal (same); *see also* Ex. 10, RMP for Bettendorf Terminal ("[T]he terminal stores butane (West facility) supplied by truck transports in two 30,000 gallon pressure vessels that is then transferred via piping and associated equipment on site and blended into gasoline."); Ex. 11, RMP for Milwaukee West Terminal ("[T]he terminal stores butane supplied by truck transports in two 30,000 gallon pressure vessels that is then transferred via piping and associated equipment onsite and blended into gasoline."); Ex. 12, RMP for Fort Worth Terminal ("[T]he terminal stores butane supplied by truck transports in one 60,000 gallon pressure vessel that is then transferred via piping and associated equipment on site and blended into gasoline."); Ex. 13 (Dkt. 130-14), Tom Edwards Dep., 95:21–25 (Apr. 13, 2016) (stating that Technics systems were installed at Green Bay Fox River, Madison South, and Milwaukee Central); Ex. 14 (Dkt. 130-16), Dan Morrill Dep., 43:17-20, 46:18-24 (June 8, 2016) (confirming that six U.S. Venture terminals have an automated blending system); Ex. 15 (Dkt. 130-25), U.S. Venture Resp. to Req. for Admis. ("RFA") Nos. 1-2 ("U.S. Venture admits that the Accused System at the Green Bay Fox River Terminal [and Madison South Terminal] sometimes includes a tank of gasoline before it is blended with butane."), Resp. to RFA No. 96 ("U.S. Venture admits that the method for blending gasoline and butane in the Accused System at the Madison South, Green Bay Fox, and Bettendorf Terminals sometimes draws a gasoline stream from a tank of gasoline," and further "[a]dmitted with respect to the Milwaukee Central and Milwaukee West Terminals").

78. Claim 7 further recites "a butane reservoir in fluid connection with said gasoline." U.S. Venture's butane blending systems include a butane reservoir in fluid connection with the gasoline. *See* Exs. 7-12; *see also* Ex. 1 ("The system begins to add butane to the flow [of gasoline]."); Ex. 1 (Technics' "Typical Process Diagram" showing flow control valves used in

connection with butane injection); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”); Ex. 13 (Dkt. 130-14), Edwards Dep., 100:1-25 (stating that the U.S. Venture systems at Green Bay Fox River, Madison South, and Milwaukee Central were connected to tanks of butane); Ex. 14 (Dkt. 130-16), Morrill Dep., 57:15-19 (confirming that all six terminals have tanks of butane connected to the blend skid); Ex. 15 (Dkt. 130-25), U.S. Venture Resp. to RFA Nos. 7-8 (U.S. Venture admitting that the “Accused System at the Green Bay Fox River Terminal [and Madison South Terminal] includes a tank of butane”).

79. Claim 7 further recites “an injector valve for discharging butane into said gasoline.” U.S. Venture’s butane blending systems include an injector valve for discharging butane into the gasoline. *See* Exs. 7-12; *see also* Ex. 1 (“The system begins to add butane to the flow [of gasoline].”); Ex. 1 (Technics’ “Typical Process Diagram” showing flow control valves used in connection with butane injection); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

80. Claim 7 further recites “a vapor pressure analyzer connected to said pipe, said analyzer configured to determine the vapor pressure of the blend of gasoline and butane, and to transmit said vapor pressure to a processor.” U.S. Venture’s butane blending systems include a vapor pressure analyzer connected to the pipe and configured to determine the vapor pressure of

the blend of gasoline and butane, and to transmit the vapor pressure to a processor. *See* Exs. 7-12; Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (“2) . . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (Technics’ “Typical Process Diagram” showing an analyzer connected to the gasoline stream); Ex. 14 (Dkt. 130-16), Morrill Dep., 60:22-23, 62:4-15 (confirming that, for all six U.S. Venture systems, an analyzer is used and connected to a processor), at 65:4-9 (stating that, for all six U.S. Venture systems, the blend ratio is “adjusted based on RVP error throughout the blend”). Technics’ software monitors the “RVP of Blended Volume,” and Technics’ “Typical Process Diagram” shows analyzers connected to the pipe. *See* Ex. 1.

81. Claim 7 further recites “a programmable logic controller governing the flow of butane through said injector valve.” U.S. Venture’s butane blending systems include a programmable logic controller (“PLC”) governing the flow of butane through the injector valve. *See* Exs. 7-12; Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“The system begins to add butane to the flow. The amount of butane delivered is calculated

through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

82. Claim 7 further recites “a processor programmed to receive the vapor pressure from the analyzer, calculate an amount of butane to inject into the gasoline based on a maximum preprogrammed volatility limit, and provide a control signal to said programmable logic controller according to said maximum preprogrammed volatility limit.” U.S. Venture’s butane blending systems include a processor programmed to receive the vapor pressure from the analyzer, calculate an amount of butane to inject into the gasoline based on a maximum preprogrammed volatility limit, and provide a control signal to the PLC according to the maximum preprogrammed volatility limit. *See* Exs. 7-12; *see also* Ex. 1 (“2) . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance

Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

83. Claim 7 further recites “wherein the programmable logic controller is configured to adjust the injector valve to govern the flow of butane through said injector valve into said gasoline based on the signal from the processor.” U.S. Venture’s butane blending systems include a PLC that is configured to adjust the injector valve to govern the flow of butane through the injector valve into the gasoline based on the signal from the processor. *See* Exs. 7-12; *see also* Ex. 1 (“The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. . . . At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is

controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

84. Additional documents have been produced in this litigation, with confidentiality restrictions in accordance with the Protective Order (Dkt. 43), which provide further support that U.S. Venture has been, and still is, infringing one or more claims of the ’948 patent by making, using, selling and/or offering to sell, without authority, butane blending systems and methods at the U.S. Oil Fox River Terminal, U.S. Oil Madison South Terminal, U.S. Oil Milwaukee Central Terminal, U.S. Oil Bettendorf Terminal, U.S. Oil Milwaukee West Terminal, and U.S. Oil Fort Worth Terminal.

85. Upon information and belief, U.S. Venture will continue to infringe one or more claims of the ’948 patent unless enjoined by this Court.

86. U.S. Venture has had knowledge, or should have had knowledge, of the earlier-issued ’302 patent and the ’302 patent family, and commercial embodiments thereof, since at least 2008. Such knowledge was obtained during or related to a December 2008 presentation to U.S. Venture regarding the patented invention.

87. U.S. Venture has had further knowledge of the earlier-issued ’302, ’629, and ’671 patents, and commercial embodiments thereof, since at least September 17, 2015, the date Sunoco asserted the ’302, ’629, and ’671 patents against U.S. Venture in the present litigation.

88. The ’948 patent is part of the same patent family as the ’302, ’629, and ’671 patents. The ’948 patent shares a nearly identical specification with the ’671 patent.<sup>1</sup> Like the ’302, ’629,

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<sup>1</sup> The ’948 patent contains one additional figure from the ’302 patent, which was incorporated by reference in its entirety, and a disclosure related to this figure. *See* ’948 Patent, Fig. 6, 16:21-17:7.



and '671 patents, the '948 patent claims its earliest priority date to Provisional Application No. 60/267,844, filed February 9, 2001.

89. On information and belief, U.S. Venture has been on notice of the claims of the '948 patent since they first published as U.S. Patent Publication No. 2016/0068775 on March 10, 2016, and has had knowledge of the '948 patent since its date of issuance on November 15, 2016, or at least as of the date of this Amended and Supplemental Complaint.

90. Despite this knowledge, U.S. Venture has continued making, using, selling and/or offering to sell gasoline blended with butane and/or systems or methods for the blending of butane and gasoline. As a result, Defendants' infringement of the '948 patent has been willful and deliberate.

91. As a result of U.S. Venture's infringement, Sunoco has suffered and will continue to suffer damages in an amount to be proven at trial and irreparable harm.

92. Upon information and belief, the conduct of U.S. Venture presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

**COUNT V**  
**INFRINGEMENT OF U.S. PATENT NO. 9,606,548**

93. Sunoco realleges and incorporates herein by reference the allegations in each of the preceding paragraphs as if fully set forth herein.

94. On November 15, 2016, U.S. Patent No. 9,606,548 (the "'548 patent") was duly and legally issued by the U.S. Patent and Trademark Office ("PTO") to Mattingly et al. for an invention relating to "Versatile Systems For Continuous In-Line Blending Of Butane And Petroleum." A true and correct copy of the '548 patent is attached hereto as **Exhibit 6**. The '548 patent is presumed valid pursuant to 35 U.S.C. § 282.

95. Mattingly et al. assigned all right, title and interest in the '548 patent to Plaintiff Sunoco Partners Marketing & Terminals L.P.

96. In violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, U.S. Venture has been, and still is, infringing one or more claims of the '548 patent by making, using, selling and/or offering to sell, without authority, gasoline blended with butane, by performing the claimed methods and/or by using the claimed systems for the blending of butane and gasoline.

97. For example, the preamble of claim 1 recites “[a] system for blending butane with a gasoline stream having a gasoline flow rate.” U.S. Venture has been and/or still is utilizing systems for blending butane with a gasoline stream having a gasoline flow rate at its Fox River Terminal, Madison South Terminal, and Milwaukee Central Terminal. *See* Ex. 7, RMP for Fox River Terminal (“This butane blending system is designed, constructed, and maintained in accordance with NFPA #58 and the manufacturers’ (Technics and Westmor) instructions.”); Ex. 8, RMP for Madison South Terminal (same); Ex. 9, RMP for Milwaukee Central Terminal (same); *see also* Exs. 10-12; Ex. 1 (“An Introduction to Technics Butane Blenders: Adjusting gasoline vapor pressure for your regional climate can enhance the profitability of your terminal and pipeline operations”); Ex. 15 (Dkt. 130-25), U.S. Venture Resp. to RFA Nos. 1-2 (“U.S. Venture admits that the Accused System at the Green Bay Fox River Terminal [and Madison South Terminal] sometimes includes a tank of gasoline before it is blended with butane.”), Resp. to RFA No. 96 (“U.S. Venture admits that the method for blending gasoline and butane in the Accused System at the Madison South, Green Bay Fox, and Bettendorf Terminals sometimes draws a gasoline stream from a tank of gasoline,” and further “[a]dmitted with respect to the Milwaukee Central and Milwaukee West Terminals”); Ex. 13 (Dkt. 130-14), Edwards Dep., 95:21–25 (stating that Technics sold three systems for Green Bay Fox, Madison, and Milwaukee Central); Ex. 14 (Dkt.

130-16), Morrill Dep., 43:17-20, 46:18-24 (confirming that six U.S. Venture terminals have an automated blending system).

98. Claim 1 further recites “an injection device injecting the butane into the gasoline stream at a butane flow rate.” U.S. Venture’s butane blending systems include an injection device injecting the butane into the gasoline stream at a butane flow rate. *See* Exs. 7-12; *see also* Ex. 1 (“The system begins to add butane to the flow [of gasoline].”); Ex. 1 (Technics’ “Typical Process Diagram” showing flow control valves used in connection with butane injection); Ex. 1 (“Our systems can be designed for bidirectional flow and the use of parallel controlled butane flow provides extremely tight dosing to within 0.05%.”); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

99. Claim 1 further recites “a volatility measurement device in communication with the gasoline stream and configured to output data representative of a volatility measurement.” U.S. Venture’s butane blending systems include a volatility measurement device in communication with the gasoline stream and configured to output data representative of a volatility measurement. *See* Exs. 7-12; Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“Technics’ blending systems homogenize a precise blend to RVP specifications within 0.1 psi on the pipeline.”); Ex. 1 (“2) . . . . Once detected the raw gasoline is sampled and its vapor pressure

and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (Technics’ “Typical Process Diagram” showing an analyzer connected to the gasoline stream); Ex. 14 (Dkt. 130-16), Morrill Dep., 60:22-23, 62:4-15 (confirming that, for all six U.S. Venture systems, an analyzer is used and connected to a processor), at 65:4-9 (stating that, for all six U.S. Venture systems, the blend ratio is “adjusted based on RVP error throughout the blend”).

100. Claim 1 further recites “a processor in connection with the injection device and the volatility measurement device.” U.S. Venture’s butane blending systems include a processor in connection with the injection device and the volatility measurement device. *See* Exs. 7-12; Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

101. Claim 1 further recites “the processor configured to: receive the volatility measurement; receive a target volatility value; determine an adjustment to the butane flow rate based on the volatility measurement and the target volatility value; and output a signal representative of the adjustment to the injection device.” U.S. Venture’s butane blending systems include a processor configured to receive the volatility measurement, receive a target volatility value, determine an adjustment to the butane flow rate based on the volatility measurement and the target volatility value, and output a signal representative of the adjustment to the injection device. *See* Exs. 7-12; *see also* Ex. 1 (“We utilize two analyzers and duplex sampling loops to ensure that operations continue during critical blending periods. The Compact RIO control system provides an Ultra-Rugged, High performance Platform for performing this complex and critical task.”); Ex. 1 (“2) . . . . Once detected the raw gasoline is sampled and its vapor pressure and density are recorded. 3) The system begins to add butane to the flow. The amount of butane delivered is calculated through a specific algorithm equating the density and RVP of the feed streams along with certain assumptions on their composition. 4) At this point the system begins analyzing the homogenized fuel and adjusts the transfer of butane to match the overall target given the value of the blend already transferred to the storage tank.”); Ex. 1 (Technics’ “Typical Process Diagram” showing a processor and/or PLC used in connection with butane injection); Ex. 13 (Dkt. 130-14), Edwards Dep., 133:2-22 (stating that the Technics systems sold to U.S. Venture use a PLC that “manipulates a control valve that is throttled and therefore the flow rate of the butane is controlled”); Ex. 14 (Dkt. 130-16), Morrill Dep., 62:23-63:6 (confirming that, for all six U.S. Venture systems, the processor is used to receive certain inputs and calculate a blend ratio at which the butane is blended with the gasoline, such that the vapor pressure of the unblended gasoline is equal to or less than a target RVP).

102. Additional documents have been produced in this litigation, with confidentiality restrictions in accordance with the Protective Order (Dkt. 43), which provide further support that U.S. Venture has been, and still is, infringing one or more claims of the '548 patent by making, using, selling and/or offering to sell, without authority, butane blending systems and methods at the U.S. Oil Fox River Terminal, U.S. Oil Madison South Terminal, U.S. Oil Milwaukee Central Terminal, U.S. Oil Bettendorf Terminal, U.S. Oil Milwaukee West Terminal, and U.S. Oil Fort Worth Terminal.

103. Upon information and belief, U.S. Venture will continue to infringe one or more claims of the '548 patent unless enjoined by this Court.

104. U.S. Venture has had knowledge, or should have had knowledge, of the earlier-issued '302 patent and the '302 patent family, and commercial embodiments thereof, since at least 2008. Such knowledge was obtained during or related to a December 2008 presentation to U.S. Venture regarding the patented invention.

105. U.S. Venture has had further knowledge of the earlier-issued '302, '629, and '671 patents, and commercial embodiments thereof, since at least September 17, 2015, the date Sunoco asserted the '302, '629, and '671 patents against U.S. Venture in the present litigation.

106. The '548 patent is part of the same patent family as the '302, '629, and '671 patents. The '548 patent shares a nearly identical specification with the '671 patent.<sup>2</sup> Like the '302, '629, and '671 patents, the '548 patent claims its earliest priority date to Provisional Application No. 60/267,844, filed February 9, 2001.

107. On information and belief, U.S. Venture has been on notice of the claims of the '548 patent since they first published as U.S. Patent Publication No. 2016/0075958 on March 17,

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<sup>2</sup> The '548 patent contains one additional figure from the '302 patent, which was incorporated by reference in its entirety, and a disclosure related to this figure. *See* '548 Patent, Fig. 6, 16:23–17:9.

2016, and has had knowledge of the '548 patent since its date of issuance on March 28, 2017, or at least as of the date of this Amended and Supplemental Complaint.

108. Despite this knowledge, U.S. Venture has continued making, using, selling and/or offering to sell gasoline blended with butane and/or systems or methods for the blending of butane and gasoline. As a result, Defendants' infringement of the '548 patent has been willful and deliberate.

109. As a result of U.S. Venture's infringement, Sunoco has suffered and will continue to suffer damages in an amount to be proven at trial and irreparable harm.

110. Upon information and belief, the conduct of U.S. Venture presents an exceptional case such that Sunoco is entitled to an award of its reasonable attorneys' fees, as provided by 35 U.S.C. § 285.

#### **PRAYER FOR RELIEF**

WHEREFORE, Sunoco prays for judgment and seeks relief against U.S. Venture and Technics as follows:

- (a) For a judgment that one or more claims of the '302, '629, and '671 patents have been and continue to be infringed by U.S. Venture and Technics;
- (b) For a judgment that one or more claims of the '948 and '548 patents have been and continue to be infringed by U.S. Venture;
- (c) For a judgment that U.S. Venture's and Technics' infringement of the '302, '629, and '671 patents has been willful;
- (d) For a judgment that U.S. Venture's infringement of the '948 and '548 patents has been willful;
- (e) For a judgment and an award of all damages sustained by Sunoco as the result of U.S. Venture's and Technics' acts of infringement, including supplemental

damages for any continuing post-verdict infringement up until entry of the final judgment with an accounting as needed;

- (f) For a permanent injunction enjoining U.S. Venture and Technics from infringing one or more claims of the '302, '629, and '671 patents;
- (g) For a permanent injunction enjoining U.S. Venture from infringing one or more claims of the '948 and '548 patents;
- (h) For a judgment and an award of enhanced damages pursuant to 35 U.S.C. § 284;
- (i) For a judgment and an award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;
- (j) For a judgment and an award of all interest and costs; and
- (k) For a judgment and an award of such other and further relief as the Court may deem just and proper.

### **JURY DEMAND**

In accordance with Fed. R. Civ. P. 38 and 39, Sunoco asserts its rights under the Seventh Amendment to the United States Constitution and demands a trial by jury on all issues that may be so tried.



DATED: April 10, 2017

Respectfully Submitted,

By : /s/ Michelle C. Replogle

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ATTORNEYS FOR PLAINTIFF  
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**CERTIFICATE OF SERVICE**

I certify that on April 10, 2017 a true and correct copy of the foregoing document has been served on counsel of record who are deemed to have consented to electronic service, via electronic filing using the Court's CM/ECF system.

/s/ Michelle C. Replogle  
Michelle C. Replogle